

# USING THE ACTION MODEL/CHANGE MODEL SCHEMA TO DESIGN A LARGE-SCALE EDUCATION PROGRAM

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## ABSTRACT

With the increasing interest in program planning, it is important for evaluators to examine the existing models for expanding their applications. Action model/change model schema is a new approach that might assist stakeholders and evaluators better designing a program. This study aims to apply the schema in a large-scale education program (the Learning Community Program) in Taiwan to augment its utilization in education field. Steps to develop the evaluation design and lessons learned are illustrated.

**Keywords:** action model, change model, program evaluation, evaluation design

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## **1. INTRODUCTION**

Stakeholders are becoming increasingly interested in asking evaluators to assist them in clarifying the assumptions underlying a program plan, and enhancing its coherence in implementation. The evaluation community has responded to these demands. For example, the theme of American Evaluation Association's 2016 Annual Evaluation Meetings is "Evaluation + Design". With the increasing interest in program planning, it is important for evaluators to examine and discuss the existing models for increasing their applications and disseminations. Currently, there are three major models, logic models, the causal loop diagram, and the action model/change model schema, in literature for evaluators to apply.

Equipped with the aforementioned models, evaluators have a potential for assisting stakeholders in planning programs with different types or levels of complexity. For example, evaluators could apply the causal loop diagram for highly complex program, whereas logic models and the schema are ideal for less complex programs (Chen, 2015). How to expand knowledge of these three models and disseminate them for applying in across fields and nations is an important issue in evaluation. Among these three, the action model/change model schema is the newest (Chen, 2005, 2015) and could benefit from wider applications in areas such as education or internationally. This study attempts to address this issue by applying the schema to a large-scale education program, called the *Learning Community under the Leadership for Learning* (referred to as *the Learning Community Program* in the article), in Taiwan. This article firstly illuminates the learning community, followed by the steps of developing the evaluation design and the lessons learned.

## **2. LEARNING COMMUNITY**

### **2.1 The Concept of Learning Community**

Growing evidence has confirmed that the learning community is one of the most effective organisational strategies for school improvement (Bolam, McMahon, Stoll, Thomas, & Wallace, 2005; Eaker, Dufour, & Dufour, 2002; Harris & Muijs, 2005; Louis & Kruse, 1995). The notion behind LC is to facilitate a group of people who share common academic goals and attitudes, who meet regularly, share expertise, and work collaboratively to improve teaching skills and the academic performance of students (Spillane, Halverson, & Diamond, 2001). Five key features—

shared values and vision, collective responsibility, reflective professional inquiry, and the promotion of group as well as individual learning, were commonly described in the literature to portray LC (Bolam et al. , 2005). Hord (1997), along with Hipp and Huffman (2010), introduces the characteristics of supportive and shared leadership, and supportive conditions within the school.

Student leaning is not a standalone activity, but is closely connected with organizational conditions (Robinson, Lloyd, & Rowe, 2008). School leadership can improve learning by supporting and developing teacher quality, defining goals, measuring progress, strategically managing resources, and collaborating with external partners (Pont, Nusche, & Moorman, 2008). Schooling is given the metaphor of a ‘learning community’ instead of being an ‘instructional delivery system’ (Sergiovanni, 2001).

In addition to the western societies, learning community is also advocated in Asia. Manabu Sato (2010, 2012), a Japanese scholar, who integrated western theories and local practices, proposed the ‘learning community’ (xue xi gong tong ti) as an approach to transform schools. Building collegiality among teachers as well as constructing the classrooms as learning communities are the two main tasks. Teacher collegiality is featured as a cycle of teachers working together to plan the lesson; conducting the lesson with one teacher teaching and others observing; and discussing the lesson taught based on the data collected (Lewis, Perry, & Murata, 2006). Learning community emphasizes leadership, community building and teacher development as points of inquiry and reflection. It is the responsibility of teachers to establish a situation for dialogue and to encourage peer collaboration. Based upon the above principles the idea of learning community could be implemented at school, teacher, and/or student level. Regardless which level, participants need to be willing to share, reflect, dialogue, and cooperate to enhance performance. Teachers are motivated by the premise of power sharing and democratic decision making in learning processes. The concept of learning community is so appealing to educators that many countries including Taiwan have adopted it as education reform.

## **2.2 The Learning Community Program in Taiwan**

‘Learning community’ (xue xi gong tong ti) has become a buzz word these few years in Taiwanese schools and has been tried out in several counties/cities. To implement an indigenous

model, the Program of *Learning Community under the Leadership for Learning* (referred to as *The Learning Community Program* in the article) was constructed. Leadership for learning is proposed as a superordinate concept of learning community (Pan, 2014; Pan, Lee, Hwang, Yu, & Hsueh, 2014). Handbooks introducing the indigenous conceptions and practices were developed (Pan et al. 2014; Pan et al., 2015).

Funded by the Ministry of Education, the Program was launched from 2013. There are 33 schools enrolled (15 of them are primary schools); and 737 teachers and 10,262 students participate in the Learning Community Program. The project office coordinating the program is located at the Graduate Institute of Educational Policy and Leadership at Tamkang University.

### **3. STEPS TO DEVELOP THE EVALUATION DESIGN**

In this study, three types of participants were involved in developing the schema: stakeholders, internal evaluator/stakeholder, and external evaluator. Stakeholders were those who were responsible for implementing the program and conducting research on program effects. The internal evaluator/stakeholder was the one who planned and evaluate the program as well as played a role in illuminating the scheme to other stakeholders. For convenience, she will be called as the internal evaluator in the rest of the article. The external evaluator provided consultation and technical assistance for the above participants in applying the schema. Methodology used in the Learning Community Program consisted of two steps:

#### **3.1 Step 1: Introduced the Action Model/Change Model Schema to Key Stakeholders**

This study started from the internal evaluator discussing with the external evaluator (Chen, 2005, 2015) regarding to the feasibility of applying the action model/change model to assess the Learning Community Program. After deciding to adopt the approach, the internal evaluator introduced the models to the stakeholders and assurance of their competencies in application. Then, the internal evaluator worked with key stakeholders to develop the schema of the Program via working group meetings.

In the first meeting, the internal evaluator explained the purpose of study and introduced the schema to stakeholders. Introductions covered the topics of the conceptual frameworks, components, and relationships among them as well as the potential usefulness of the schema to

their program. The concepts were explained in non-technical terms and illustrated by real-world examples.

### **3.2 Step 2: Developed the Schema of the Learning Community Program**

At this step, key stakeholders and internal evaluator identified components of the schema. Some components required back and forth communication in order to best apply the schema. The first draft of the schema was developed in the first working group meeting and held up for further discussions and revisions. Four additional meetings were held to agree upon the schema. The refined version of the action model/change model schema is illustrated in Figure 1. The illuminations of the components of the schema are as follows:

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Figure 1 about here

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#### **Action Model:**

Six components of the action model are:

#### **Implementing Organization:**

The project office was established for coordinating program activities, such as hiring personnel, establishing partnerships, coordinating activities, and developing the intervention protocol.

#### **Implementers:**

Implementers were staff and consultants responsible for training and mentoring school administrators and teachers.

**Associate Organizations/Partners:**

The project office then began building partnerships with universities, government agencies, and schools. This was intended to help support the planning and implementation of the program. Another effort in this component was to connect schools as a network of resource and information.

**Ecological Context:**

The project office and partners then needed to launch campaigns to promote the Learning Community Program via conferences and media to create a milieu for supporting the program.

**Intervention and Service Delivery Protocols:**

The project office and partners then developed models to help adapt the notion of learning community to become an indigenous models and protocols for Taiwanese culture. Adaptation of the program made application more feasible in Taiwanese schools and communities.

**Target Populations:**

The project office with the assistance of partners was then responsible for recruiting schools and teachers to participate in the program.

**Change Model:**

Three change processes, school-level, teacher-level and student-level, were expected to generate from the implementation of the action model. Each level consisted of three components: intervention, determinants, and outcomes. The three levels of change models are:

**School-Level:**

Intervention: Trained and mentored school administrators for school-level interventions

Determinants: Increased administrators' competency and capability in initiating and practicing learning communities in their respective schools.

Outcomes: Administrators would create structural and policy changes for supporting the learning community activities in schools, and were likely to increase school solidarity and increase innovative curriculum and instruction.

### **Teacher-Level:**

Intervention: Trained and mentored teachers for practicing learning communities

Determinants: Increased teachers' skills, knowledge, and commitment for practicing learning communities

Outcomes: Increased dialogues, collaboration, and experience sharing among teachers and increase their capacity for professional development.

### **Student-Level:**

Interventions: Conducted learning-centered teachings in classrooms

Determinants: Increased students' engagement in inquiry, collaboration, and expression as well as improve social interactions and relations in classes.

Outcomes: Increased students' engagement of learning, enhanced their learning power, and enhanced their performance

## **Impacts of the programs**

Figure 1 also indicates these three-levels of changes would create the following overall impacts: Improving student achievement and career after graduation, increasing the number of school adopting learning communities, and contributing to improving government education policies.

## **4. LESSONS LEARNED**

After having initial agreement of the schema, the internal evaluator and stakeholders discussed their experiences with the application of the schema. It was indicated by the participants that applying the schema to assess the Learning Community Program had been an informative experience. The schema that they developed may effectively synthesize the multiplicities in a graphic format. It is easy to understand and is conducive for communication. Since developing the schema involves a collaborative process, it requires all participants to fully contribute time and effort. However, benefits acquired deserve devotion. Based upon the experiences, evaluators and stakeholders summarized the benefits of the schema, which are as follows.

*Identify the major components of the program and provide a guide for evaluation:*

For the stakeholders and evaluators, the schema offers a framework which can effectively identify major components of a program. Additionally, the schema serves as a useful foundation for communicating and designing an evaluation. What the benefits mentioned by the participants are similar to those found in the applications of logic models (Knowlton & Phillips, 2009; McLaughlin & Jordan, 1999 ; Renger & Hurley, 2006).

*Provide a platform for a participatory discussion in developing a program*

In a typical program, different stakeholders are busy working on their area. They often do not have an opportunity to review and discuss major issues and share their views with others. The schema provides a platform for applying a participatory approach in which stakeholders work together on all areas in developing the schema for their program. This process could in turn increase stakeholders' commitment and support of the program.



### *Provide insights on a program*

In the process of developing the schema, the participants were required to clarify contextual factors and causal mechanisms. Looking for the logical rationales to explain how interventions work requires deep reflection. It consequently renders new insights and understanding of the program.

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Figure 1 Action Model/Change Model of the Learning Community Program

